Amendments to the Claims

This listing of the claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1-43. (canceled)

44. (new) An optical wire comprising:

a termination adapted to be placed directly onto one or more microelectronic chips, wherein the termination comprises a substrate, a device connected with the substrate, the device being selected from the group consisting of a photodetector and a laser, and at least one terminal adapted to electrically connect the microelectronic chip with the device; and

an optical fiber contacting the termination and optically connected with the device.

45. (new) The optical wire of Claim 44, wherein the termination is about 250 micrometers by 250 micrometers.

46. (new) The optical wire of Claim 44, wherein the optical fiber is optically connected with the device through a mirror surface of the substrate.

47. (new) The optical wire of Claim 44, wherein said optical fiber is having a numerical aperture of at least about 0.35.

48. (new) The optical wire of Claim 44, wherein the substrate further comprises a groove and a mirror.

49. (new) The optical wire of Claim 48, wherein said optical fiber is disposed within the groove and wherein the optical fiber is optically connected with the device through the mirror.

50. (new) The optical wire of Claim 48, wherein the groove is V-shaped.

51. (new) The optical wire of Claim 44, wherein said laser is a vertical-cavity surface emitting laser.

52. (new) The optical wire of Claim 44, wherein said photodetector is selected from the group consisting of a PIN photodiode detector and a metal-silicon-metal photodetector.

53. (new) The optical wire of Claim 44, wherein the terminal is selected from the group consisting of a solder bump and a compression bond.

54. (new) The optical wire of Claim 44, wherein the substrate comprises material selected from the group consisting of gallium arsenide and indium phosphide.

55. (new) The optical wire of Claim 44, wherein the substrate has a Zinc-blended crystallographic structure.

56. (new) The optical wire of Claim 44, wherein the laser emits at a wavelength selected from a group of wavelengths, said group comprising wavelengths of about 980 nanometers or about 1300 nanometers.

57. (new) The optical wire of Claim 44, wherein the laser emits at a wavelength selected from a group of wavelengths, said group comprising wavelengths of about 1300 nanometers or about 1550 nanometers.

58. (new) The optical wire of Claim 44, wherein the photodetector is sensitive within a range of wavelengths between about 980 nanometers and about 1550 nanometers.